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A Longitudinal Study of Sequential Organization of L2 Repair in Classroom Contexts

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This paper builds on Seedhouse (2004)'s study on conversational interaction and second language (L2) learning in formal pedagogical contexts through a longitudinal investigation of repair. Theoretically, the project engages with concepts of repair and language learning within the field of conversation analysis (CA) and attempts to re-examine the relationship between L2 repair and L2 classroom contexts proposed by Seedhouse. Methodologically, the research employs a conversation analytic approach to L2 spoken data, and it incorporates quantitative analysis as well as field notes and interviews to explore the complexities of L2 repair in terms of its sequential organization over time. The findings suggest that L2 repair is sequenced differently in accordance with the pedagogical goals set by the teacher. More importantly, this study adds to the previous research in that the learners oriented to achieving L2 accuracy in all pedagogical contexts regardless of the initial pedagogical focus.

Introduction

The main objective of conversation analysis (CA)'s analytic inquiry is based on the argument that conversation is orderly and comprises generic infrastructures of talk that operate within any conversation, irrespective of the specific activity or language. Speakers recurrently and systemically use these infrastructures to achieve, maintain, and restore understanding (Sacks, Schegloff, & Jefferson, 1974; Schegloff, 1991, 2007).

More recently, with regard to examining L2 learning in classrooms within a CA perspective (Kasper 2009; Larsen-Freeman, 2004; Lee & Hellermann, 2014; Markee & Kasper, 2004), Seedhouse (1999, 2004, 2005) proposes that there is a generic infrastructure which can help render 'learning' from the participant's point-of-view, thus making visible how speakers orient themselves, and to what they orient, in L2 learning contexts. Recent CA studies sharing this viewpoint have suggested that learners' *repair* practice, which is regarded as one component of conversational organization and part of learners' *interactional competence* (He & Young, 1998; Kasper, 2006; Markee, 2000, 2004, 2008; Young & Miller, 2004; Ngyuyen, 2012), is a particularly rich source of information about how language users utilize their linguistic and pragmatic resources in conversation.

This study investigates the extent to which the organization of repair sequences, namely self-initiated self-repair (SISR), self-initiated other-repair (SIOR), other-initiated self-

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repair (OISR), and other-initiated other-repair (OIOR), in different pedagogical contexts as identified in Seedhouse (2004) are found in L2 classroom contexts in two New Zealand high schools over a period of one year.

Literature Review

Repair, by definition, refers to all efforts made by speakers to maintain common understanding or *intersubjectivity* when some source of interactional trouble (e.g., problems in talking, hearing, and understanding) arises (Heritage, 1984). Confirmation checks, clarification requests, restatements, repetitions, understanding checks and the like, including non-verbal features (e.g., gaze, gesture), all fall within the domain of repair in CA work, regardless of linguistic correctness and the participants' degree of expertise with the language being used (Hellermann, 2009, 2011).

Seedhouse (2004) suggests that what constitutes as 'repairable' depends on the context, and the organization of turn-taking sequences in L2 repair varies based on the pedagogical focus. He argues that in regard to the sequential organization of L2 repair, there is a "reflexive relationship between the pedagogical focus and the organization of repair" (p. 179). Seedhouse (2004) provides a comprehensive overview of the reflexive relationship between the pedagogical focus and the repair organization in three L2 pedagogical contexts: *form-and-accuracy*, *meaning-and-fluency*, and *task-oriented.* This section contains a brief review of each with examples.

Form-and-accuracy Contexts

In form-and-accuracy contexts, the pedagogical focus is on getting the learners to produce the exact targeted linguistic forms. Therefore, in this context, repair is overwhelmingly initiated by the teacher (other-initiated self-repair) in order to have the learner produce precise linguistic items. In the classroom context, there are more OISRs than other-initiated other-repairs (OIOR) where the teacher completes repair as well as initiating it. Examples of each are given below, in Excerpt 1.1.1 (van Lier, 1988, p. 197, as seen in Seedhouse, 2004, p. 146) and Excerpt 1.1.2. (Lightbown & Spada, 1993, p. 76, as seen in Seedhouse, 2004, p.146).

Excerpt 1.1.1 OISR in Form-and-accuracy Contexts

```
L1    they are watch televi-television
T→    okay now. yesterday at eight o'clock (.) they(.)
L1    they ar[e they watche[s watched [ they were=
T→           [they.        [they:::   [they ()
L1    =(.) watching
```

In Except 1.1.1, the teacher initiates repair of a specific linguistic item by repeating what the learner said immediately before the error. The learner then produces the corrected form (continuous past tense), thereby completing the repair. Alternatively, the teacher can simply provide correction, as can be seen below.

Excerpt 1.1.2 OIOR in Form and-accuracy Contexts

```
L     it bug me to have=
T→    =it bugs me. it (bugzz) me
L     it bugs me when my brother takes my bicycle.
```

In Excerpt 1.1.2, the teacher initiates and completes repair by producing the correct form. In addition, self-initiated other-repair (SIOR) is also common in L2 classrooms. Learners typically initiate repair then others complete it when the repair initiator is no longer able to proceed to verify that the form produced is in fact the one targeted.

On the other hand, Seedhouse (2004) found that learners rarely employ self-initiated self-repair (SISR) in this context because it is the teacher who evaluates the accuracy of the learners' form and who therefore predominantly initiates the repair. Another notable, though rare, repair practice noted by Seedhouse in this context is when the teacher initiates *peer-repair*. For instance, when one learner fails to produce the string of linguistic forms which the teacher is targeting, the teacher invites other students to repair. Seedhouse proposes that this type of repair appears to be context-specific in the sense that "there is no evidence that this trajectory ever occurs in ordinary conversation; it is not reported in any of the CA works on repair in conversation […] and appears to occur in the database only in form-and-accuracy contexts"[i] (p. 148).

Meaning-and-fluency Contexts

Seedhouse (2004) claims that in meaning-and-fluency contexts, the pedagogical aim is to maximize the opportunities for interaction and to express personal message, rather than producing specific linguistic forms, thereby promoting fluency over accuracy. The focus of repair in this context is, therefore, on establishing mutual understanding and negotiating meaning. According to Seedhouse (2004), in contrast to the form-and-accuracy contexts, incorrect linguistic forms and interlanguage forms are frequently ignored, and repair of correct and appropriate linguistic forms in fact never occurs unless they lead to a breakdown in communication. Repair in meaning-and-fluency context is "conducted in a way that is more similar to ordinary conversation, and in a completely different way from the form-and-accuracy context" (p. 149-150)[ii] . For example, as can be seen in Excerpt 1.2.1, the teacher does not attempt to repair linguistic errors at all but instead attempts to clarify the message or meaning (example taken from Hassan, 1988, p. 258-259, as seen in Seedhouse, 2004, p. 150).

Excerpt 1.2.1 Repair in Meaning-and-fluency Contexts

```
T     could you tell me something about marriage in Algeria? who is
      married here?
L1    Azo, only Azo.
T     alright, your opinion about that.
L2    he will marry.
T     oh, he is engaged, engaged. tell me something about
      the institution of marriage in Algeria. tell me
      something about it.
L3    there are several institutions.
T     you don't have marriage in Algeria. what do you have then?
L4    only women and men.
```

```
T     yes, that's what marriage is.
L1    the marriage in Algeria isn't like the marriage in England.
T     what do you mean?
L2    for get marriage you must pay two thousand,
L5    yes more expensive than here,
T     why do you have to pay money?
L6    no. it’s our religion.
L7    not religion but our tradition.
L8    no religion, religion, in religion we must pay women,
      but not high price, but tradition.
L5    between women, women does not like to married to a
      low money because it is not, it is(,)
T     oh, dowry, oh dear.
```

Task-oriented Contexts

In contrast to the two previous pedagogical contexts, in task-oriented contexts, “there is no focus on personal meanings or on linguistic forms” and the learners are required to “communicate with each other in order to complete a task, and the focus is on accomplishment of the task rather than on the language used” (Seedhouse, 2004, p. 153). Therefore, what is repairable is defined in this context “as anything that prevents the learners from completing the task, and repair is focused on removing such hindrances” (Seedhouse, 2004, p. 153). In a typical task-oriented context, the teacher allocates tasks to the learners and then withdraws, and the learners are expected to manage the interaction themselves. While the teacher does not play any significant part in the interaction, learners sometimes turn to the teacher for help when having difficulty with the task. Therefore, in this context, self-initiation of teacher repair (SIOR) is more common (and more appropriate to the pedagogical focus) than teacher-initiation of repair (OISR). Seedhouse (2004) also noted that in this context, there was no attempt initiated by learners to correct other learner’s linguistic forms.

The learners in Excerpt 1.3.1, for example, aim to establish understanding and to reach consensus on how to group the words through repair (example taken from Nunan, 1993, p. 60, as seen in Seedhouse, 2004, p. 154). In line 11, L2 uses an open type of repair initiator to elicit L1’s understanding of the meaning of the word “Darwin”. In Line 12, L1 displays an understanding of the words as referring to a man. In Line 13, L2 conducts OIOR and displays an alternative understanding of “Darwin” as referring to a place. In Line 14, L1 insists on “Darwin” being a man and adds a membership categorization device (i.e., a discoverer). Finally, in Line 15, L2 confirms that agreement has been achieved.

Excerpt 1.3.1 Repair in Task-oriented Contexts

```
01 L1 statistic and diagram(.)they go together, you
02    know diagram?
03 L2 yeah.
04 L1 diagram and statistic: are family(.)but maybe,
05    I think, statistic and diagram(.)you think we can
06    put in science? or maybe (.)
07 L2 science, astronomy,(yeah)and er can be agriculture
08 L1 agriculture’s not a science
09 L2 yes, it’s simi ar(.)
```

```
10 L1 no(.)er may be Darwin and science(.)
11 L2 what's the Darwin?
12 L1 Darwin is a man
13 L2 no, it's one of place in Australia
14 L1 yes, but it's a man who discover something,yes,'m sure
15 L2 OK.
```

In sum, Seedhouse (2004) proposes that in L2 classrooms, the definition of what is repairable and also the entire mechanism of repair become inevitably adapted to the institutional goal of language learning and to the particular pedagogical focus employed. Through their repair practice, speakers in L2 classroom interaction are always displaying to one another their understanding of the relationship between pedagogy and interaction, and they act on the basis of these analyses. This "reflexive relationship between pedagogy and interaction […is] the omnipresent unique feature of the L2 classroom" (Seedhouse, 2004, p. 531).

To date, there has been little research to support Seedhouse's claim from both a micro (within an activity) and macro (over a period of time) perspective. While Seedhouse (1999, 2004) was able to show how L2 repair was organized differently with regard to different pedagogical focus introduced by the teacher, he did not investigate whether such interplay between the different types of pedagogical context and the organization of repair was found consistently over a longer period of time. Further, there have been few attempts to implement a frequency analysis or other supplementary data such as ethnographic field notes and interview comments to assess the relationship between repair organization and L2 classroom contexts over time.

Methodology

Instructional Setting

All of the English as a second language (ESL) classes in both schools in which the recordings took place were located in Auckland, New Zealand, and they had students of mixed grades (year 11-13). There was one teacher and the number of students in each classroom ranged from 6 to 14, including the focal participants. The overarching curriculum goal of these ESL classes was to enhance the learners' ability in general English language for everyday use and assist them to achieve their academic goals with specific focus on the four-language skills (i.e., listening, writing, reading, and speaking). The study materials usually involved prescribed textbooks and extra print-outs (e.g., newspaper articles) chosen by the teachers. In a typical lesson, the teacher introduced the topic of the lesson, and different types of classroom activities took place. The lesson activities that were recorded were either task-based or accuracy-based (Ellis, 2003).

Participants

The focal participants were seven Korean learners of English as a L2 (ages between 16 and 18) in two different high schools in New Zealand. There were originally 10 participants, but three of the participants wished to discontinue their participation and their data were

excluded from the analysis. One of the participants was from a different school (School A) and was the only female participant in this study. The rest were all male students and attended the same school (School B). The participants' general English proficiency level can be described as *lower intermediate*, meaning that they "mastered the basics of English" and have "practical language skills for everyday use," also known as Level B1[iii] (Cambridge English, 2016).

Teachers

In total, 4 teachers agreed to have their classes participate in the study. Their teaching experiences varied from 3 to 8 years. In School A, Teacher 1 taught all of the ESL classes while each of three other teachers (Teacher 2, Teacher 3, and Teacher 4) taught ESL classes at School B.

Classroom Audio Recording

Each participant could ideally participate in a total of eight classroom audio recording sessions and each recording was approximately 50 minutes long. In most cases, there was at least a three-week interval between each recording with some of them having a four to five weeks' interval. Due to other curricular commitments, most participants were not able to participate in all eight recordings. For this analysis, a total of 37 recording sessions were collected.

An audio recorder was placed on a close proximity to the focal participant and the teacher (e.g., on their desk). While video-recording provides better insight to the speakers' orientation to semiotic resources (e.g., gaze, body movements), the researcher was only allowed to use audio-recorders as they were deemed less distracting by the schools for the focal participants and other students in the classroom.

Researcher's Field Notes: Participant Observation

In addition to the focal participants' audio-recorders, the researcher sat close by the focal participant with a separate set of audio recorder during the classroom audio recordings and made observation notes with a laptop computer. During the observation, the interactional features which could not be audio-recorded such as gesture (e.g., nodding, shrugging shoulders) and facial expression (e.g., frowning, raising eye brows) but would have implications in the transcript were noted with the time they took place as they appeared on the researcher's audio-recorder.

Interviews

The teachers were interviewed after each lesson about the overall purpose they intended for the lesson and each of the classroom activities as well as any questions the researcher had during the classroom observation. The interview was audio-recorded, transcribed, and referred to as needed by the researcher. Any classroom materials used in the lessons were photocopied and referred back during the analysis as needed.

Stimulated Recall Interview

As one of introspective methods, stimulated recall has been employed by L2 researchers "as a means of eliciting data through thought processes" involved in a task or

activity (Gass & Mackey, 2000, p. 133). In this study, stimulated recall interview comments were collected and consulted to supplement the classroom interaction data. They were referred to in order to resolve any ambiguities arising in the examination of why and for which linguistic item the repair was initiated. Specifically, a delayed stimulated recall method (Gass & Mackey, 2000, p. 51), in which the participants were interviewed within the 48 hours of their classroom recording was employed. The procedural structure of the interview was a combination of a high and a low structure recall (Faerch & Kasper, 1987). For instance, the researcher selects an instance of focal participants' repair from the audio recording, play it back to the focal participant and asks a question such as "What did you think the teacher wanted you to focus here/at this point/ on during this activity?" (to identify pedagogical focus), "Can you tell me what you wanted to change at that point?" (to identify trouble source for repair). Then, it was up to the participant to what and how much they answer. The recall interviews were conducted in the researcher's and the focal participants' L1 (Korean) but the speakers were free to code-switch between their L1 and L2.

Analysis of Data

The classroom interaction data was transcribed following the transcription conventions developed and elaborated by Jefferson (2004), and computer software, *Transana* was used for all audio files and transcripts. In order to describe the relationship between the characteristics of different repair sequences and the L2 classroom contexts, the participatory structure of interaction where repair occurred was examined first. The participatory structure was analyzed at two levels. Firstly, it was studied in relation to the classroom activity and coded *as teacher-fronted classroom interaction*, *pair-work, group-work,* and *individual task* (Nassaji, 2013). In teacher-fronted classroom interaction, the teacher led whole-class interactions during which s/he interacted with the whole class with no other activities (e.g., pair/group work) going on at the same time. During this interaction, the teacher would sometimes engage in one-on-one interaction with a student as when responding to a student question. A classroom activity was recognized as pair-work when two learners were assigned to work together as a pair on a task or activity. In group-work, a group of learners (usually three to four) worked together on a task or activity at a close physical proximity (e.g., same desk). In pair-work and group-work, the teacher usually moved around between groups to observe and listen to their conversation, and to provide assistance. In individual task, the learners worked individually. During this period the teacher often walked around the class, observing and assisting individual students. Then, the participatory structure was further described in terms of the speakers involved in the interaction and coded: *Teacher-Focal Participant, Focal Participant-Learner, Focal Participant-Learners, and Focal Participant-Class*. In Teacher-Focal Participant interaction, the focal participant was engaged in one-to-one interaction with the teacher. In Focal Participant-Learner, the focal participant was engaged in conversation with a fellow learner, while Focal Participant-Learners referred to interaction between the focal participant and a number of fellow learners. Lastly, in Focal Participant-Class, the focal participant addressed the whole class. Such occasions typically involved providing an answer required by the teacher during a teacher-fronted classroom interaction or giving a presentation in front of the class.

After the procedures described above, each repair instance was closely examined with special attention to the ways in which its pedagogical focus was made relevant, namely, form-

and-accuracy, meaning-and-fluency, and task-oriented. The relevant pedagogical context was determined by using all three methods introduced by Seedhouse (2004). In addition to examining the statement made by the teacher regarding the intended pedagogical focus during class (first method), the researcher consulted the classroom observation notes and the teacher interview comments about the overall purpose intended for the lesson and each of the classroom activities (second method). To further strengthen the emic analysis of the transcript, stimulated-recall interview comments regarding what the speakers recognized as the pedagogical focus and the source of repair were referred back to as needed. While the observation notes, interview comments and stimulated recall comments were consulted retrospectively, most attention was given to observing how the participants were displaying their analysis of and orientation to the pedagogical focus in their turns at talk in the details of the interaction (third method).

Findings

In this section, the major characteristics of repair organization found each of pedagogical contexts in this study are laid out and comparisons with the findings from Seedhouse (2004) are made.

Repair Organization in Form-and-accuracy Contexts

The majority of the organization of repair sequences found in form-and-accuracy contexts in this dataset supported the previous findings in Seedhouse (2004), which suggested that repair sequence is reflexively related to the pedagogical focus and tightly structured given that the sequential organization of interaction needs to correspond exactly to the linguistic form the teacher intends. For instance, the teachers were determined to get the learners to produce target linguistic forms until they were precisely what they wanted. In Example 1, the teacher focuses on getting learners to use a plural noun after the phrase ‘one of the’. Firstly, the teacher provides options from which the students can choose (line 03). When the answer provided by the learner (L) is not the targeted form (line 04), the teacher initiates repair (line 05) in the form of a Designedly Incomplete Utterance turn (Koshik, 2002), a type of turn that is designed to be intentionally incomplete by the teacher, who already knows how the next turn should be completed by the student.

Example 1

```
01 T   let's go through the plural ones first. choose the ones with plurals.
02     go through have a look. So if we are looking at live-stock farming is
03     one of the-one of the problem? or problems
04 L   problem
05 T   okay so is it one problem or one of the:
06 L   problems
```

However, there were also some differences in the data found in this study in comparison to Seedhouse’s (2004) account of repair in form-and-accuracy contexts. While Seedhouse emphasized the role of teacher-initiated repair in ensuring accurate production of a specific L2

form and accounted that more repair was typically initiated by the teachers, the repair sequences found in this study were overwhelmingly initiated by the learners. In fact, learner-initiated and completed repair on their own L2 production (i.e., SISR) was most frequent and they showed such conscious orientation to achieve L2 accuracy.

Example 2 demonstrates a learner's typical use of SISR to make one's turn grammatically accurate without any teacher-initiation. While there are several instances of SISR made by Focal Participant K in this example, what is particularly interesting is the SISR in line 11. In this excerpt, the pedagogical aim set by the teacher was not on the accurate production of prepositional phrases. In fact, the target language construction set by the teacher was *by*+gerund. Regardless of the pedagogical goal initially set by the teacher, Focal Participant K initiates self-repair during his construction of a prepositional phrase, 'of' and completes the repair himself within the same turn by replacing the trouble source several times (i.e., 'of, to, from').

Example 2

```
01 Z   what are be- benefai of knowing your learning style?
02 K   uh the best of knowing my learning style is I can I can study
03     (0.4)
04     I can study with the best de.condition.
05 Z   um
06 K   to me. because I know how can I study, and how can I improve my
07     study.styl.ah. study yeah. how. yeah improve. I know
08     (0.8)
09     if I improve the. the stu.stu.studying ski:ll
10 Z   ((unintelligible))
11 K→  yeah I can get the good result of. to. from the. yeah.something
12 Z   yeah
```

Another distinctive feature of repair organization in form-and-accuracy context found in this study was learner-initiated repair sequences that were completed by others (SIOR). Primarily, L2 learners often lack the L2 ability to provide repair for themselves. Therefore, the teacher or more competent learners are asked to complete the repair (Appel, 2010; Nassaji, 2013). In Example 3, Focal Participant D is working on his persuasive argument task and has trouble deciding which verb to use. He initiates self-repair and then asks for teacher assistance as he reaches a point at which s/he is no longer able to proceed in order to confirm that the forms he produced are correct (line 01). The teacher then provides repair in the following turn (line 03). An interesting feature to note in this example is that the other learner also (L1) offers repair completion though he was never asked to by D.[iv] L1's input is ignored, though, as the noun ('education') is not what D wanted the teacher to repair[v]. The teacher offers repair on both the verb and the noun in line 03 ('have' for 'take' and 'education programs' for 'education'). D then displays what the traditional Second Language Acquisition literature identifies as 'uptake' (line 04) following the teacher's repair completion (line 03) (Lyster & Ranta, 1997), or "sequencing-closing third" in CA (i.e., information registering "oh" or action accepting "okay" in the third position) (Schegloff, 2007), accepting the repair completion.

Example 3

```
01 D  sir. They should take. Take education?[ or:
02 L1                                        [classes
03 T  eh (1.0) they should have education programs=
04 D  =ah have
```

The learners also provided other-repair or correction on their peer's previous turn in order to achieve linguistic accuracy (OIOR). When they did, the repair initiator took the role of a teacher. Unlike other-initiation by the teacher, however, the speaker of the trouble source often rejected or questioned the validity of the repair offered by their peers. This rejection usually resulted in an expansion of a repair sequence (i.e., typically involving inserted questions and answer pairs) or turning to the teacher for a final confirmation /further assistance.

In Example 4, line 04, S provides repair on his peer F's previous turn. Apparently, S thinks the correct pronunciation for the word *numerous* is /numberous/. However, F repeats the trouble source unrepaired in the following turn (line 06). As a result, the trouble source turn still remains as repairable to S and the repair sequence is expanded into two question and answer sequences (lines 07-08 and 09-10). In Line 07, S initiates other-repair by repeating the trouble source with a rising intonation. In the following turn, F seems to recognize this attempt to repair and provides a repair completion but with a negative question ('isn't it pronounced as /nju:m(ə)rəs/?'). Still not satisfied with F's repair completion in line 08, S initiates another repair by asking F a question about the definition of 'numerous' in line 09. In the repair completion in the following turn, F provides the definition of the trouble source in Korean (L1) (lines 10-12). S finally accepts F's repair completion (line 13) and carries on with the task.

Example 4

```
01 F   1920 century? A-nin-de?
                    ((tr:It does not sound right?))
02 S   1920's
03 F   intermide:ate with numerous d-=
04 S→  numberous
05     (2.5)
06 F   neu:mourous
07 S   newmourous?
08 F   new-mour-ous A-ni-ya?
                   ((tr.:Isn't it?))
09 S   what.what does it it mean? new-mour-ours
10 F   geu-reo-ni-kkia myeot myeot i
       ((tr.:so such such number))
11     (0.2)
12     igeo i-sang
       ((tr.:more than this))
13 S   oh okay new-mours-ours [uses including
```

In sum, different to the findings in Seedhouse, in this study, not only the teachers but also the learners proactively initiated self-repair and other-repair to resolve linguistic issues. This focus on L2 accuracy suggests that the learners were monitoring their L2 interlanguage

and at least in part were aware of their limited L2 competency and the need to produce accurate L2 forms, and this in turn had an impact on the turn design. These repair sequences were, in fact, *necessary* as these learners had limited L2 ability and they were in a particular type of learning situation. Future investigations on L2 repair in classroom contexts would need to consider the preferred sequential order suggested by Schegloff, Jefferson, and Sacks (1977) along with the nature of repairable and the pedagogical contexts in which it is found as well as to whom the trouble source belongs.

Repair Organization in Meaning-and-fluency Contexts

In this study, the learners' as well as the teachers' repair were focused on maintaining mutual understanding of the content of the speaker's message rather than on linguistic correctness in meaning-and-fluency contexts. The pedagogical aim was to provide the learners with ample opportunities to engage in interaction. Accordingly, the sequential organization of repair was less constrained in the sense that the repair was not directed at getting the learner to produce a specific L2 form at a specific turn. As Seedhouse (2004) claims, the L2 repair sequences found in this context were conducted in a similar way to ordinary conversation, and 'less rigid' than that of repairs in form-and-accuracy contexts.

For example, prior to the exchange transcribed in Example 5, the teacher invites students one at a time to take part in a teacher-learner interaction by asking what each student did during the weekend. Then in line 1, the teacher invites Focal Participant D. The pedagogical focus is on the speaker's expression of personal meaning and on the contribution of new information to the immediate classroom community. The teacher's role is more that of a mediator whose purpose is to ensure that the learners have opportunities to speak and the speaker's message is conveyed to the peers in the class, as well as a collaborator in the dialogue. The teacher's utterances therefore contain markers of change of information state and clarification requests (e.g., 'oh' in line 18 and 'really?' in line 20) (Heritage, 1984) thereby encouraging a smooth conversational flow and nurturing fluency. The teacher also attempts to keep the other learners engaged, focused, and interested (lines 04, 08). To note, when the teacher initiates repair, the teacher replaces the repairable with an additional element to clarify what the learner meant in the previous turn (line 14). This is different from the repair initiated in form-and-accuracy contexts, which were purportedly to get the learner to produce a specific L2 string. In the same vein, the SISR episodes found in this pedagogical context often involved repairing to provide more information rather than achieve linguistic accuracy, as it was the case in the form-and-accuracy contexts (line 15).

Example 5

```
01 T   okay then Dongju [What did you do?
       ((In the background some other students are chatting amongst
       themselves))
02 D                    [ah
03      ah I went to city to cut my hair ist-
       ((a number of students chatting in Chinese))
04 T   did you hear him? ((to the students chatting)) what did he say?
       ((the group of students is silent but smiles. Some of them look
       down at their desk))
```

```
05     (0.6)
06 D    okay refeat again
07 T    yeah
       ((still looking at the group of students chatting in Chinese))
08      but next time listen okay?((turns to D))
09 D    I went [to t-
10 P           [cough]
11 D    I went to city to cut my hair in Saturday, and dated my
12      um eh home stay aunt?(0.4)
13      in cafe.um In Sunday I.just.flay the game here.hh
14 T→  yesterday whole day?
15 D    yeah. a. whole day no.eh: afternoon?
16 T    afternoon
17 D    yeah from afternoon and to(0.4)dinner.here wid my new ESOL Korean friend.
18 T→  oh
19 D    here
20 T→  really?
21 D    lilly hhhh
```

Interestingly, while Seedhouse suggests that repair of correct and appropriate linguistic forms never occurs in meaning-and-fluency contexts in his data; in this study, both teachers and students frequently engaged in repair to resolve linguistic problems. To note, while the repair was focused on achieving linguistic accuracy, the sequential organization of these repairs were designed to avoid interrupting the learners' ongoing and subsequent turns, thereby observing the overarching pedagogical aim of the task and staying in harmony with the typical sequential organization of repair identified with repair in meaning-and-fluency contexts (Seedhouse, 2004) as the next excerpt shows.

In Example 6, the teacher initiates repair to direct S's attention to his incorrect pronunciation of *leave* on several occasions (lines 04, 06). Rather than interrupting the flow and overtly correcting S's trouble source, she uses an embedded correction in a form of modulated question. When these attempts fail to lead the learner to repair the trouble source (i.e., S simply confirms the message contents in lines 05, 07), the teacher continues with the current task and provides an instruction for the next part of the task in line 08.

Example 6

```
01 T   So dreams-What does dream tell us about? What does Philipa's
02     dream tell us about? Why is it important?
03 S   tk.I think she doesn't wanna live in like.that.situation now↑
04 T→ yeah she wants to leave?
05 S   yeah
06 T→ lea:ve the situation?
       ((writes leave the situation down on the board))
07 S   yeah
08 T   yeah. you can write that down in your essay as well. umm and uh-
       ((lines omitted))
```

More exposed and overt correction of incorrect or inappropriate linguistic forms (i.e., in a form of a statement, OIOR) does occur, but it appears to be used only when there is trouble, which prevents the interaction from continuing. Example 7 below was collected three weeks after Example 6 in the same teacher's class. Here, the same Focal Participant S continues to have trouble with the L2 word *leave.* This time though, it is not the incorrect pronunciation of the word but the meaning of the word *leave*. The class has been put into groups of three. The teacher asks the students whether they want their wives to work or stay home. Sometime later, the teacher notices that S is not participating much in the group so she joins his group and initiates teacher-learner interaction. S inappropriately uses 'leave' to mean that he would let his wife do whatever she wants (line 04). The teacher initiates repair in a form of a clarification request in line 05 by repeating the trouble source. When this is not immediately acknowledged by S, she initiates another repair in line 07 using a more specific repair initiation 'you mean *plus*-' to prompt repair completion by S. In the following turn, S provides a simple confirmation as a repair completion. Then, the teacher provides a more explicit correction in line 09 (i.e., OIOR) to clarify for the group what S should have said to mean what he originally intended in line 04. Thus, the teacher provided a number of opportunities for S to self-complete the repair before she provided a direct form of repair completion.

Example 7

```
01 T        what would you do, what would your wife like, what would you like
02          your wife to do or okay? Talk amongst yourselves.
            ((students are talking to each other in groups))
03 T        how about Sangjin
04 S        I.if if if um my wife want to do something. I just leave her.
05 T        leave her? Heh[ehe
06 Group                  [hhhhh
07 T        you mean you want to support her?
08 S        yeah
09 T→       yeah you would support her.okay yeah. not leave her
10 Group    [hhhh
11 S        [hhh leave
```

Furthermore, while other-initiated repair was the more prevalent form of repair initiation in meaning-and-fluency contexts, the speakers also engaged in self-initiated other-repair and to attend to their own linguistic accuracy during interaction with peers in the absence of the teacher. As in the form-and-accuracy contexts, the learners initiated self-repair and left the turn incomplete or requested help so that it could be completed by the next speaker.

In Example 8, the students are working on a pair activity on exchanging information about what their learning style is. In line 11, when student Z experiences difficulty in expressing the benefits of his learning style (i.e., SISR, left incomplete), his peer, P offers repair in the following turn (line 12). This is a typical SIOR found in meaning-and-fluency contexts in this study. Further, in this example, P shows (line 12) that he is not only oriented to accurate L2 production of his peer's but also to his own by initiating SISR to replace 'to' with 'for'.

Example 8

```
01 Z    I don't know. I don't know. benefit of knowing
02      my learning style is I can study more
03 P    yeah
04 Z    and practice
05 P    uh can you give me some egg.examples?
06 Z    when I know my learning style I will use.use
07      my learning style to quickly to learning some important
08 P    yes
09 Z    a: to to remember
10 P    oh
11 Z    this.this is will help er:
12 P→  helful to you.helful for you
13 Z    yeah
```

In summary, the repair in meaning-and-fluency context does not primarily aim to obtain linguistically correct L2 forms from the learners. Incorrect L2 linguistics and interlanguage forms are frequently ignored, unless they lead to a breakdown in the communication. In accordance with the pedagogical aim, minimal interlanguage forms are regarded as valid contributions by both leaners and teachers (Seedhouse, 2004).

In terms of the sequential organization, the speakers orient to maintaining understanding and continuing the current conversation, therefore the turn design is less tightly structured in comparison to the repairs identified with the form-and-accuracy contexts. Different from Seedhouse (2004), in this study, both the learners and the teachers at times displayed orientation toward achieving linguistic accuracy; however, they most typically employed less direct forms of repair initiation in comparison to the ones found in the form-and-accuracy contexts.

Repair Organization in Task-oriented Contexts

According to Seedhouse (2004), the successful completion of the given task is the principal objective in task-oriented contexts. Thus, the teacher usually withdraws from conversation after providing the relevant instructions for the task, and the learners engage in repair sequences when there is a need to establish mutual understanding of the task and agree on how to approach and complete the task among themselves. In line with Seedhouse's (2004) description of repair organization in task-oriented contexts, the repair sequences found in this study were usually initiated by the learners during peer interaction. In this context, 'trouble source' refers to anything that hinders the completion of the task, and repair is focused on removing such hindrances. In the following Example 9, Focal Participant B is working on a pair activity with his classmate Q. The task requires them to provide their own answers as to what their 'learning style' is. The teacher has instructed the students to provide examples and also state what aspects of their learning style they think are important and why. When B thinks that Q is providing a general fact rather than his own experience thereby deviating from the task requirement, he stops Q and initiates repair (lines 05, 07).

Example 9

```
01 B   what do you think about that? yeah about that?
02     what is the important. important thing to speak to other peoples.
03     like tone, or body languages like standing standing in the one place
04 Q   I think voice tone and uh
05 B→ no. tuh. That's not your answer
06 Q   I know I know. I think
07 B   I want your own answer
08 Q   I think body language is.using the ch.justure↑
09 B   pardon?
10 Q   using the:
11 B   gesture=
12 Q   =gesture yeah
13 B   gesture yeahs
```

The data for task-oriented contexts in this study also differed from those reported in Seedhouse (2004) in that there were some examples of repair sequences, which were initiated to achieve linguistic accuracy independent of the task requirements. In Example 10, there are three learners in a group activity: Focal Participant K, student E and student N. The task required each of the students to provide their personal response to the video they had just watched as a class. Prior to this interaction, N and E provided their answers and K is the last person to provide his answer (line 01). Thus, K is correct in thinking that everyone has taken their turns and provided a response (line 03), thereby completing the task. However, E thinks that K has not taken his turn and provided his response, therefore making the task incomplete (line 05). This difference in the learners' understanding of the progress they have made so far in the task results in communication breakdown as we will see below. To add to this, E's lack of linguistic accuracy becomes a further trouble source (line 05; 'see' instead of *said*, the past-participle for *say*). K subsequently initiates repair (line 06) but it gets expanded a number of times as E's repair completion (line 07) does not solve the problem. K initiates another repair in the following turn (line 08) by recycling the trouble source and replacing the repairable with *what*, indicating more specifically *where* in the turn the trouble source is. Interestingly, this second repair is completed by a third party, N as a correction (line 09; OIOR). E confirms that N's correction is in fact what he intended to say (line 10) and the speakers now move back to solving the original problem (i.e., whether everyone has taken their turn). Following his OIOR, N further assists and elaborates what E meant by 'you haven't see' (lines 11, 13). K finally understands but objects to it (line 14) and this results in further exchange of turns .

Example 10

```
01 K  it is not necessary to use the elephant teeth
02 N  yeah I agree with you.
03 K  so finished?
04    are you done?
05 E  you haven't see
06 K  what?
07 E  you haven't see:
08 K  You haven't what?
```

```
09 N→ You haven't said
10 E  you. haven’t said
11 N  you((unintelligible))express
12 K  ah yeah
13 N  your interesting idea that you have found.
14 K  no no . I I I hhI ask ask I ask him.
15    did you finish?
16 E  yeah
17 K  but he says to me. It's not make sense.
18 E  oh oh ver: well.
```

It was not possible to know whether or not they finally came to mutual understanding as the lesson came to an end. The turn taking displayed in Example 10 demonstrates that the learners actively participate in repair practice in order to establish mutual understanding and accomplish the task, but also to address linguistic problems at times.

Frequency of Each Repair Organization in Pedagogical Contexts

Table 1 illustrates the total instances of each type of sequential organization of repair (SISR, SIOR, OISR and OIOR), in which the focal participants were engaged and how frequently they were found in each of the pedagogic context (form-and-accuracy, meaning-and-fluency, and task-oriented) in this study. In total, most repair instances were found in meaning-and-fluency context and this may reflect its pedagogical aim, which was to encourage speakers to engage in as much conversational interaction as possible. Regarding the types of repair, the focal participants initiated and completed repair on their own L2 production (SISR) most frequently, followed by completing repair that was initiated by other speakers (OISR), initiating repair to be completed by other speakers (SIOR), and lastly providing corrections (OIOR). What is noteworthy is the frequency of these different types of repair in different pedagogic contexts.

Table 1
The Frequency of Instances of Repair in Three Pedagogical Contexts

Pedagogical Contexts	SISR	OISR	SIOR	OIOR	Total Repairs
Form-and-Accuracy	41	37	5	4	87
Meaning-and-Fluency	168	82	38	16	304
Task-oriented	1	8	5	0	14
Total Number of Repairs by Sequential Organization	210	127	48	20	405/405

While Seedhouse (2004) suggested that repair instances in form-and-accuracy contexts are overwhelmingly teacher-initiated OISR and OIOR, and SISR rarely occurs; the learners in this study frequently employed SISR to repair their own L2 production in the form-and-accuracy contexts. To note, the largest proportion of SISR was found in the meaning-and-

fluency contexts and linguistic correction (OIOR) was, too, found mostly in the meaning-and fluency contexts. This suggests, the learners in this study oriented towards achieving linguistic accuracy even in the absence of the teacher and regardless of the pedagogical aim initially set by the task.

The teachers' comments collected from interviews could also provide an explanation for why there were relatively few teacher-initiated repair (OISR) or correction (OIOR) focusing on linguistic accuracy in this study. Overall, the teachers indicated that they were motivated to give students ample opportunities to use their L2 in a comfortable environment and avoid interrupting their speech. The teachers generally tended to draw learners' attention to a linguistic error only when: the activity at hand made it necessary to do so, for example when the target form was given in writing; drawing attention to the L2 form was also beneficial for the whole class or other students; the teacher thought a student was too advanced to be making a particular error; a student was making the same L2 mistake repeatedly. Based on the teachers' comments, it seems that the teachers' beliefs and teaching philosophy also underlie why there was relatively little teacher-initiated repair targeting L2 accuracy in the present study.

In task-oriented contexts, the learners initiated self-repair to correct their own L2 production; but they rarely initiated other-repair to make linguistic corrections on their peers' previous turn. This is likely due to the fact that the overarching focus of repair in this context was on restoring mutual understanding of the task, specifically regarding the task procedures or achieving the task outcome. Therefore, there might have been little need to initiate other-repair to promote L2 accuracy.

All in all, repair instances were least frequently found in the task-oriented contexts. It is possible that the limited repair sequences in this pedagogical context in the current data simply reflect the paucity of tasks that stimulate L2 learners to negotiate or reach consensus on how to approach and complete the given task. Or it could indicate that in general, L2 speakers are less likely to engage in conversation 'about' the task or its procedure. It is unclear at this point whether a similar trait was found in Seedhouse's (2004) data or why as it did not include frequency analyses.

Conclusion

Seedhouse (2004) proposed, "each context has its own particular pedagogical focus and its own typical organization of repair which is reflexively related to that pedagogical focus" (p. 158-159). That is, each pedagogical context has its own logic and its own definition of what constitutes trouble and hence of what is repairable.

The L2 classroom repair found in this study largely supported Seedhouse (2004) in that L2 repair is sequenced differently in each pedagogical context which differ in accordance with the pedagogical goals. More importantly this study adds to Seedhouse (2004) in that the speakers were found to orient to different aspects of L2, especially achieving L2 accuracy, irrespective of the pedagogical aim initially set by the teacher by employing different types of repair sequences.

Further, the addition of researchers' field notes and stimulated interview comments as supplementary to the analysis of classroom recording transcripts was useful in identifying the intended pedagogical focus by the teacher (task-as-work plan) and the actual pedagogical focus

(or task-in-process). Especially, the stimulated recall comments helped the researcher to cross-reference what the learners oriented as repairable and how they repaired it.

Suggestions for Future Research

The quantitative analysis of this study indicated that the sequential organization of repair investigated in this study were largely representative of repair practice in meaning-and-fluency contexts. Moreover, only very few examples of repair sequences were found during task-oriented contexts. Therefore, it would be worth investigating repair practice in each of these pedagogical contexts with comparable frequency in order to fully compare the repair behavior in different pedagogical contexts.

Another limitation concerns the stimulated recall interview comments. In this study, the focal participants were asked to comment only on the occasions they were involved in a repair sequence. Therefore, there was no access to the information regarding why the L2 speakers did not initiate or complete repair on some occasions.

With these limitations, the study is important in that it demonstrated what L2 speakers orient to during conversation in different L2 pedagogical contexts, and how they sequence their turns in repair to maintain intersubjectivity and achieve their pedagogical goals. Furthermore, the present study was among the first to investigate the sequential aspects of L2 repair overtime implementing both qualitative and quantitative methods.

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Notes

[i] However, see Markee (2000).

[ii] However, in fact, in meaning-and-fluency contexts, side sequences involving purely linguistic correction occurs (*negotiation of form*, see Ellis, Basturkmen, & Loewen, 2001).

[iii] According to the Cambridge English Language Assessment, a student at *Cambridge English: Preliminary* Test Level B1 has "mastered the basics of English and now has practical language skills for everyday use" (Cambridge English, 2016, http://www.cambridgeenglish.org/exams/preliminary-for-schools/). The participants' level of proficiency in this study was decided by the ESL teachers based on their classroom tests and formal English language proficiency tests which were taken on a regular basis.

[iv] Line 02 could also be seen as L1's attempt to verify 'his' production by the teacher as they were working on the same task; rather than offering repair on D's production in the previous turn.

[v] In the stimulated recall interview, D confirmed that he initiated self-repair to repair the verb 'take' and wanted the teacher to verify the appropriateness of the verb in the phrasal verb 'take education'.